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Production of Parsnips

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PRODUCTION OF PARSNIPS

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Importance and Distribution

The parsnip is listed as one of the less important commercial vegetable crops, but large areas are grown each year, especially in home and local market gardens. As far as climatic conditions are concerned, it is adapted to much of the United States, but commercial production is practically limited to the northern portion of the country in a broad belt extending from the New England States to the Pacific coast. Massachusetts, New York, Illinois, Pennsylvania, Washington, and California have about 60 percent of the commercial acreage. However, as a home-garden crop its culture is Nation-wide. In the warmer, drier portions of the country trouble may be experienced during the summer in obtaining a stand. Yet few garden crops give greater response to good soil, ample moisture, and good culture than does the parsnip, and these factors are of greater importance than the geographical location of the planting.

In regions to which the parsnip is adapted, it makes a valuable addition to the list of vegetables for the home or market garden. It has many qualities to commend it, including its high food value and the ease with which it can be kept for late winter and early spring use, when the list of available vegetables may be somewhat restricted, especially in rural communities. The home gardener finds a row 30 to 50 feet long ample to supply his needs. Market gardeners usually restrict plantings to not over an acre or two, as the vegetable requires much hand work, is rather expensive to grow, and the demand is somewhat limited. Moreover, it occupies the land over a period sufficiently long for the production of two or three short-season crops. The bulk of the commercial crop is grown in market-garden areas around cities and not in distant truck-crop sections where shipment is depended upon for placing the product on the market.

Soils and Fertilizers

Any deep, fertile soil will grow good parsnips, but a deep, rich clay loam having no tendency to form a crust or bake is best adapted. Land for parsnips should be thoroughly worked to a depth of at least a foot, as shallow soil will give rough, misshapen roots of an undesirable character. Old garden land in a high state of fertility as a result of long-continued manuring and cultivation is best, but most market growers prefer to apply manure during the preceding season on some other crop, and this is especially desirable if the manure is fresh. Well-rotted manure can be worked into the land while it is being prepared for parsnips.

Commercial fertilizer may be used to advantage in growing parsnips. If manure is employed, the quantity of fertilizer may be

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reduced somewhat; but in general from 1,000 to 2,000 pounds per acre, or from 25 to 50 pounds to each 1,000 square feet of land, of a mixture containing 4 to 5 percent of nitrogen, 10 to 12 percent phosphoric acid, and 6 to 8 percent of potash should be employed. Many growers prefer to drill about 500 pounds per acre of the fertilizer in the rows, applying the remainder broadcast. For row application, such as in home-garden work, a total of 3 to 5 pounds to each 100 feet of row is a suitable rate of application. Such a treatment makes additional broadcast applications unnecessary. When the fertilizer is used in the row it should be well worked into the soil before the seed is planted. Broadcast applications should likewise be thoroughly incorporated with the top few inches of soil.

Varieties and Seed

Listed varieties of parsnips include Hollow Crown, Guernsey, Improved Half Long, Long Smooth, and Short Thick; but Hollow Crown and Guernsey are suitable for most needs.

Parsnip seed retains its vitality for only a very short period, so that freshly grown seed should always be obtained. If it is desired to grow seed for local use, a few of the choicest of the parsnips should be left in the ground or reset in the spring to produce seed.

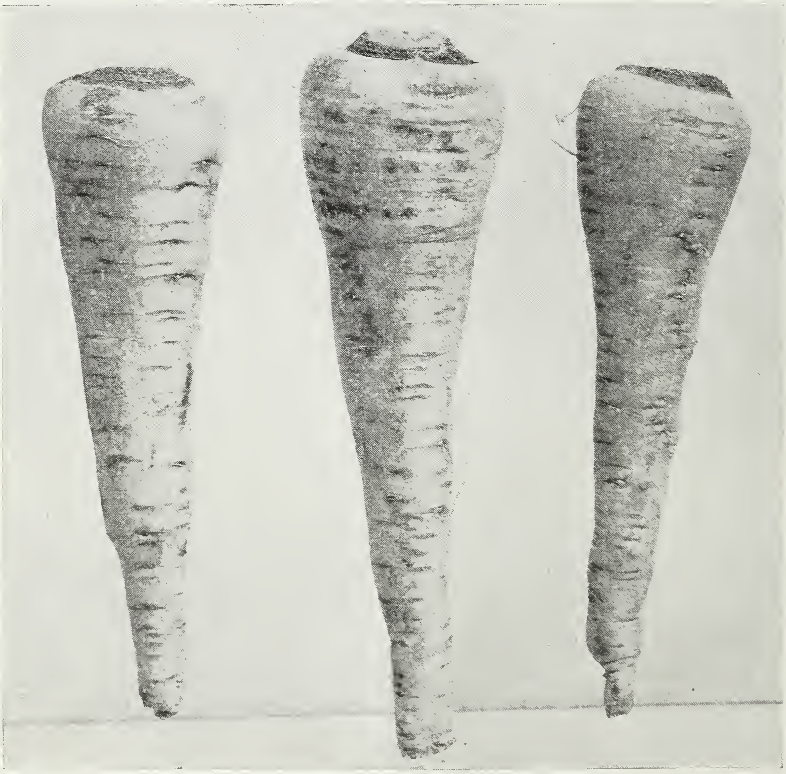

FIGURE 1.—Typical specimens of the Hollow Crown type of parsnip roots about 8 or 10 inches in length. Parsnips frequently grow to a length of 15 inches.

A half ounce of seed is usually sufficient for a 100-foot row; 3 to 5 pounds per acre are used, the quantity depending on the width of the rows.

Cultivation

Deep plowing of the soil is of prime importance. The subsequent preparation for planting should be absolutely thorough; care being taken that all clods are finely pulverized and that all foreign material such as stones, sticks, and roots are removed for a depth of at least a foot. The methods for accomplishing this work are determined by the equipment available and the extent of the operations. In the home garden the spading fork and the garden rake are excellent tools for the work. In the commercial truck patch the tractor plow, the double-disk harrow, or other power or horse-drawn implements are employed. Whatever the equipment, the work should be continued until a perfect seedbed is obtained.

Before drilling the seed it is essential that the top inch or two of soil be gone over with a fine-toothed harrow or a steel rake and made perfectly fine. If trash of any character remains on or near the surface it is well to hand-rake the land before seeding. The seed may be sown in shallow furrows by hand, or a good hand drill may be employed. A gang seeder drawn by a garden tractor is also satisfactory, especially where an acre or more is being planted. Rows may be of any width from 15 to 24 inches for hand or power wheel-hoe cultivation and 30 to 36 inches for horse culture. The seeds should be covered one-half to three-fourths of an inch deep, and after the plants are well up they should be thinned to about 3 to 4 inches apart.

Parsnip seed is slow in germinating, and if the soil is dry it may not come up at all. With land of a heavy character it is often possible to help germination by covering the seed with leafmold, sandy loam, a mixture of sifted coal ashes and soil, or other similar material which will not pack. Rolling the land after seeding usually hastens and improves germination. Covering the rows with boards until the plants begin to come through is also practiced. If the soil is dry, watering it with the sprinkling can, hose, or by an overhead irrigation system will insure germination and a good stand under almost all conditions. Sowing a few radish seeds along with the parsnip is a good plan, as the radishes break the crust and permit the parsnips to come through.

Cultivation for the control of weeds should continue until the leaves practically cover the ground. After it becomes impracticable to continue wheel-hoe or horse cultivation, hand work for the control of weeds should be kept up. Parsnips continue to grow until checked by hard frosts.

Harvesting and Storage

At the close of the growing season, parsnips may be dug, topped, and either stored in cold storage or in a good type of root cellar or buried in an outdoor bank or pit. Or they may be left in the ground until spring. In recent work, Boswell[1] found that when the roots are stored at 32° to 34° F. they become sweet and of high grade quicker than when stored in a common cellar or left in the field. He also found that improvement in the quality of parsnips when left in the field until cold weather is largely due to the accumulation of cane sugar. The chief objection to leaving the parsnips in the row until wanted is the difficulty in obtaining them when needed for consumption. In any case they should be removed from the ground before growth starts in spring, as this uses up the food in the root which soon becomes woody and unpalatable.

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[1] BOSWELL, V. R. CHANGES IN QUALITY AND CHEMICAL COMPOSITION OF PARSNIPS UNDER VARIOUS STORAGE CONDITIONS. Maryland Agricultural Experiment Station Bull. 258. 1923.

There is no evidence that parsnips which have remained in the ground over winter are poisonous. The reported cases of poisoning from eating so-called wild parsnips have all been traced to the water-hemlock (*Cicuta* species), which belongs to the same family and resembles the parsnip somewhat. Therefore, great care should be exercised to avoid gathering wild material for human consumption.

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